ThinkStation® S20 (4157) - Global (Windows 7)

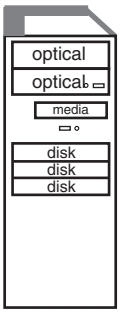
	Name	Type-model	Slot x bay	Processor	GHz	Cores	Memory DIMMs	Disk(s)	Disk size	Pre-config RAID	SATA optical	Diskette or Media reader	Graphics adapter(s)	1394 adptr	Win7 preload	Global	Avail date
✂	**S20**	4157-G9U	5x6	W3530	2.80	4	2x2GB	1x146GB[2] SAS	3.5"	No	DVD±RW	Media		None	Pro64	Global	Aug 10
✂	**S20**	4157-H1U	5x6	W3530	2.80	4	2x2GB	1x146GB SAS	3.5"	No	DVD±RW	Media	1xFX1800	None	Pro64	Global	Aug 10
✂	**S20**	4157-H2U	5x6	W3550	3.06	4	3x2GB	1x146GB SAS	3.5"	No	DVD±RW	Media		None	Pro64	Global	Aug 10
✂	**S20**	4157-H3U	5x6	W3550	3.06	4	3x2GB	1x146GB SAS	3.5"	No	DVD±RW	Media	1xFX1800	None	Pro64	Global	Aug 10
✂	**S20**	4157-H4U	5x6	W3680	3.33	6	3x2GB	1x146GB SAS	3.5"	No	DVD±RW	Media	1xFX3800	None	Pro64	Global	Aug 10
✂	**S20**	4157-H5U	5x6	W3565	3.20	4	3x2GB	1x146GB SAS	3.5"	No	DVD±RW	Media		None	Pro64	Global	Aug 10
✂	**S20**	4157-H6U	5x6	W3530	2.80	4	2x2GB	1x150GB SATA	2.5"	No	DVD±RW	Media	1xFX1800	None	Pro64	Global	Aug 10
✂	**S20**	4157-H7U	5x6	W3530	2.80	4	3x2GB	1x500GB SATA	3.5"	No	DVD±RW	Media	1xFX580	None	Pro64	Global	Aug 10
✂	**S20**	4157-H8U	5x6	W3530	2.80	4	3x2GB	1x500GB SATA	3.5"	No	DVD±RW	Media	1xFX1800	None	Pro64	Global	Aug 10
✂	**S20**	4157-H9U	5x6	W3550	3.06	4	3x2GB	1x500GB SATA	3.5"	No	DVD±RW	Media	1xFX1800	None	Pro64	Global	Aug 10
✂	**S20**	4157-J6U	5x6	W3530	2.80	4	2x2GB	1x500GB SATA	3.5"	No	DVD±RW	Media	1x2000	None	Pro64	Global	Oct 10
☞	**S20**	4157-J7U	5x6	W3550	3.06	4	2x2GB	1x500GB SATA	3.5"	No	DVD±RW	Media	1x2000	None	Pro64	Global	Oct 10

- ***These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)***

Processor	**Intel® Xeon® Processor W3530**, **W3550**, or **W3565** with **quad-core**, 4.8GT/s (giga-transfers/second) QPI (QuickPath Interconnect), Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1066MHz DDR3 memory controller, and 8MB cache or **Intel Xeon Processor W3680** with **six-core,** 6.4GT/s QPI, Intel 64, Hyper-Threading Technology, Virtualization Technology, Turbo Boost Technology, 1333MHz DDR3 memory controller, and 12MB cache
Implementation	One LGA1366 socket
Memory	**4GB** or **6GB** std, 48GB max, **UDIMM**, **PC3-10600 1333MHz DDR3*****, **ECC**, 3-channel capable, six 240-pin DIMM sockets *** System automatically clocks down for processors with 1066MHz DDR3 memory controller
Graphics	Two PCI Express® x16 adapters required for quad monitor support, * Adapters >75W use auxiliary power connector(s) from PSU *Some:* **NVIDIA® Quadro® FX 580**, PCIe x16 adapter, 512MB, two DisplayPort™, one dual-link DVI-I****, 40W *Some:* **NVIDIA Quadro FX 1800**, PCIe x16 adapter, 768MB, two DisplayPort, one dual-link DVI-I****, 59W *Some:* **NVIDIA Quadro FX 3800**, PCIe x16 adapter, 1GB, two DisplayPort, one dual-link DVI-I****, 108W *Some:* **NVIDIA Quadro 2000**, PCIe x16 adapter, 1GB, two DisplayPort, one dual-link DVI-I****, 62W **** Only two display connectors are active at a time
Media reader	20-in-1 media reader, internal USB 2.0
SATA disk(s)	*Some:* **500GB**, SATA 3.0Gb/s, 7200 rpm, 3.5" *Some:* **150GB**, SATA 3.0Gb/s, 10000 rpm, 2.5"
SAS disk(s)	*Some:* **146GB**, SAS 3.0Gb/s, 15000 rpm, 3.5"
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive
Disk controller	Serial ATA, SATA 3.0Gb/s, integrated in ICH10R, three SATA connectors for disks, two SATA connectors for opticals *SAS model(s):* Marvell® 88SE6440, PCIe x4 adapter, 4 SATA/SAS[4] connectors, SATA 3.0Gb/s, SAS 3.0Gb/s
Chipset	**Intel X58 Express Chipset**, Intel I/O Controller Hub 10 RAID (ICH10R) for RAID 0, 1, 5 support, Winbond® W83627DHG-P Super I/O
Front ports	Two USB 2.0, microphone (3.5mm), headphone (3.5mm)
Rear ports	Eight USB 2.0, eSATA, serial (9-pin), ethernet (RJ-45), six analog audio ports (line-in, mic-in, front-out, rear-out, center/sub-out, side-out), Optical SPDIF digital out, Optical SPDIF digital in
IEEE 1394 adptr	None
Audio	High Definition (HD) Audio, Analog Devices AD1988A codec
Speaker	Internal speaker for business audio
Ethernet	One gigabit ethernet on planar, Broadcom® BCM5755
Security chip	Broadcom Trusted Platform Module, TCG 1.2-compliant
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black
Mouse	Optical Wheel Mouse (USB connector), black
Power supply	625 watts with 120mm bottom-mounted variable speed fan, universal, Climate Savers® Computing Bronze, 80 PLUS® Bronze qualified
Cooling	3 to 5 fans (power supply, CPU, rear, opt front PCI [>75W graphics], opt front [SAS])
Rack mount	Rack shelf support

Tower

- Raven black color; metal case
- 6.9"W x 19.0"D x 18.8"H (with handle)
- 175mm W x 483mm D x 478mm H
- 38.5 lb (17.5kg) max configuration
- 31-liter
- Removable handle on top front
- Toolless side cover removal
- Toolless disk and optical drive removal
- Toolless adapter retention
- Illuminated front icons
- Rack shelf support



Bay ① 5.25", 1.6" high, external, std optical
Bay ② 5.25", 1.6" high, external, open
Bay ③ 3.5", 1" high, external, std media reader
Bay ④ 3.5", 1" high, internal, std disk
Bay ⑤ 3.5", 1" high, internal, opt disk
Bay ⑥ 3.5", 1" high, internal, opt disk

Slot 1: full-length, full-height, PCIe 2.0 x16 (75W* max)
Slot 2: full-length, full-height, PCIe 2.0 x4**
Slot 3: full-length, full-height, PCIe 2.0 x16 (75W* max)
Slot 4: full-length, full-height, PCIe x1
Slot 5: half-length, full-height, 32-bit PCI 2.3

** x16 mechanical

SECURITY

- Security chip (see information on left)
- Side cover lock (ships with two identical keys)
- Padlock loop (in rear for opt padlock; padlock prohibits side cover removal)
- Security slot (in rear for optional Kensington® Microsaver® cable; prohibits side cover removal)
- Power-on password
- Administrator password
- Boot sequence control
- Boot without keyboard, mouse, diskette
- Serial port I/O control
- USB port disablement (front or all)

Supports ThinkVantage® technologies

GREENGUARD® certified
RoHS-compliant
EPEAT™ Gold rating

LIMITED WARRANTY[1]

- **3-year parts and labor**
- **Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts[3], 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)**
- **ThinkPlus™ services available; see http://lenovo.com/thinkplus/warranty**
  - **Onsite service upgrade options (in eligible locations)[7]**
  - **Post warranty maintenance services**
- **24 hour x 7 day[14] toll-free support during the warranty period[1] via 800-426-7378**

Preloaded operating system[20]

- Genuine Windows® 7 Professional 64

Preloaded applications[5] (only some listed)

- Rescue and Recovery™
- Microsoft Office 2010 preloaded; purchase product key to activate
- Roxio® Creator® Business Edition (DVD±RW)
- Corel® WinDVD® (DVD±RW)

Accessories

2GB PC3-10600 DDR3 ECC UDIMM	43R2033
4GB PC3-10600 DDR3 ECC UDIMM	57Y4138
500GB SATA 3.0Gb/s Disk (7200 rpm)	43R1990
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918
Blu-ray™ Burner SATA 1.5Gb/s	45K1675
ThinkVision® L2440p Wide 24" Monitor	4420HB2

Other accessories at **lenovo.com**/accessories

See footnotes for important warranty information

☞ US models announced October 26, 2010; previous models on August 3, 2010

✂ US models withdrawn effective December 2010 or February 2011

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